

IN THE CLAIMS

1. (Previously Presented) A method of processing a chain of database management messages exchanged between a management center and a plurality of distributed subscriber databases,

wherein each management message member of this chain comprises a chain header and a chain identifier, the method comprising the steps of:

creating a conditional block for each management message member of said chain, said conditional block indicating at least one of the following conditions:

the management message member associated with the conditional block is to be processed without reference to all or part of other message members of the chain,

the management message member associated with the conditional block is to be processed with reference to at least one of other message members of the chain;
at least one management member of the chain containing a conditional block indicating a condition wherein said management message member is to be processed with reference to at least one of other message members of the chain;

adding said conditional block to each of said respective management message members of said chain; and

transmitting the chain of database management messages between a management center and a plurality of distributed subscriber databases;

reading at a subscriber database, the conditional block of the received management message of said chain;

determining at a subscriber database whether processing of a received message is subject to a condition in the corresponding conditional block;

managing a table in the subscriber database, containing an information representing a processing state of each member of the chain,

determining from said table which are the message members of said chain that have been processed;

if the processing of the received message is not subject to a condition, immediately processing said message;

if the received message is subject to a condition, determining from said table whether the condition has been fulfilled;

if the condition has been fulfilled, immediately processing said message;

if the condition has not fulfilled, locally storing said message and later processing the message when the condition is fulfilled;

updating said table when a message member of said chain is successfully processed.

2. (Cancelled).

3. (Previously Presented) A method according to claim 1, wherein the method comprises the steps of:

resetting said table either on request of the managing center or after a predefined time.

4. (Previously Presented) A method according to claim 1, wherein the subscriber database is connected to a subscriber unit and wherein it comprises the step of storing the management messages in a memory of the subscriber unit and of presenting them on request to the subscriber database.

5. (Previously Presented) A method according to claim 4, wherein the method comprises the steps of storing incoming messages in series, each incoming message causing an increment of

a stack pointer of incoming messages, and of allowing a direct access to the messages requested by the subscriber database.

6. (Previously Presented) A method according to claim 4, wherein the memory of the subscriber unit is configured as a serial buffer memory having a fixed length.

7. (Previously Presented) A method according to claim 4, wherein the method comprises the steps of receiving in the subscriber database, a message member of a chain, and of allocating in the subscriber unit, the memory necessary for receiving all the members of this chain.

8. (Previously Presented) A method according to claim 4, wherein the method comprises the steps of requesting the subscriber module to compose a management message describing its software and hardware resources and of sending said message either to the subscriber database or to the management center.

9. (Previously Presented) A method according to claim 8, wherein the request is transmitted, either by the management center under the form of a management message, or by the subscriber database under the form of an instruction on an I/O line.

10. (Previously Presented) A system for processing a chain of database management messages, comprising:

(a) a management center adapted to transmit said chain of database management messages, wherein said chain of messages comprises a plurality of management message members, each management message member of the chain comprising a header, a chain identifier, a chain index, and a conditional block indicating at least one of the following conditions:

the management message member associated with the conditional block is to be processed without reference to all or part of other message members of the chain; and

the management message member associated with the conditional block is to be processed with reference to at least one of other message members of the chain; at least one management member of the chain containing a conditional block indicating a condition wherein said management message member is to be processed with reference to at least one of other message members of the chain;

(b) a plurality of subscriber units, each of the subscriber units adapted to receive said chain of database management messages, wherein each subscriber unit comprises a subscriber database located in a security module and wherein, said subscriber unit is adapted to:

read the conditional block of a received management message member of said chain;
determine whether the processing of the received message is bound to a condition;
manage a table containing information representing a processing state of each member of the chain;

determine from said table which message members of said chain have already been processed;

if the received message is not bound to a condition, immediately processing said message;

if the received message is subject to a condition, determine whether the condition has been fulfilled;

if the condition is fulfilled, process the message immediately;

if the condition has not been fulfilled, locally storing said message and later processing the message when the condition is fulfilled;

updating said table when a message member of said chain is successfully processed.

11. (Cancelled).

12. (Previously Presented) A system according to claim 10, wherein the security module includes a message manager able to store in a memory an information representing a processing state of each message of the chain, and wherein the security module includes a state comparator adapted to compare said processing state of each message of said chain with the condition expressed in the conditional block of the message currently processed.

13. (Previously Presented) A system according to claim 10, wherein the subscriber unit includes a memory for messages, wherein each incoming message causes the displacement of an input pointer in the memory, and wherein the security module is adapted to read and process these messages.

14. (Previously Presented) A system according to claim 12, wherein the subscriber unit includes a connection line towards the security module and wherein said subscriber unit is adapted to determine the size of the memory according to instructions received from the security module and to reply to the security module by composing and sending a management message to said module.

15. (Previously Presented) A system according to claim 12, wherein the subscriber unit includes a selection module to operably connect a management message separator, a processing center of the subscriber module, the security module and the memory, and wherein said subscriber unit is adapted to recognize the management messages destined only to the processing center and to forward these messages to the processing center.

16. (Previously Presented) A method of exchanging, between a management center and a plurality of distributed subscriber databases, a chain of database management messages comprising a plurality of management message members, the method comprising the steps of:

determining dependencies between management message members to be sent as part of

the chain of management messages, wherein each management message member comprises a chain header and a chain identifier and wherein said chain identifier identifies the order of transmission of said management message members of said chain;

using said dependencies to create a conditional block for each management message member, wherein said conditional block determines a permissible order of processing of each management message member forming a chain of management member messages;

inserting said conditional block into said management message member;

transmitting said management message member from the management center to at least one subscriber database;

managing at the subscriber database a table containing information representing a processing state of each member of the chain;

determining at the subscriber database whether the processing of each of the management message members received from the management center is subject to a condition;

processing at the subscriber database each management message member not subject to a condition immediately;

processing at the subscriber database each management message member that is subject to a condition immediately if the condition is fulfilled;

locally storing at the subscriber database each management message member that is subject to a condition that has not been fulfilled and later processing the management message member when the condition has been fulfilled; and

updating a table in the subscriber database containing information representing a processing state of other members of the chain.

17. (Cancelled).

18. (Previously Presented) A method of receiving a chain of database management messages from a management center at a plurality of distributed subscriber databases, the method comprising the steps of:

receiving at least one management message member that is part of said chain of database management messages, wherein each management message member of said chain comprises a chain header, a chain identifier, and a conditional block;

reading at a subscriber database, the conditional block of the received management message of said chain;

determining whether the processing of each of the management message members received from the management center is subject to a condition in the conditional block;

processing each management message member not subject to a condition immediately;

processing each management message member that is subject to a condition immediately if the condition is fulfilled;

locally storing each management message member that is subject to a condition that has not been fulfilled for processing when the condition has been fulfilled.

determining from said table which are the message members of said chain that have already been processed;

if the processing of the received message is not bound to a condition, immediately processing said message;

if the received message is bound to a condition, determining from said table whether the condition is fulfilled;

if the condition is fulfilled, immediately processing said message;

if the condition is not fulfilled, locally storing said message and processing said message

when the condition is fulfilled;

updating said table when a message member of said chain is successfully processed.

19. (Cancelled).

20. (Cancelled).